

FIG. 1

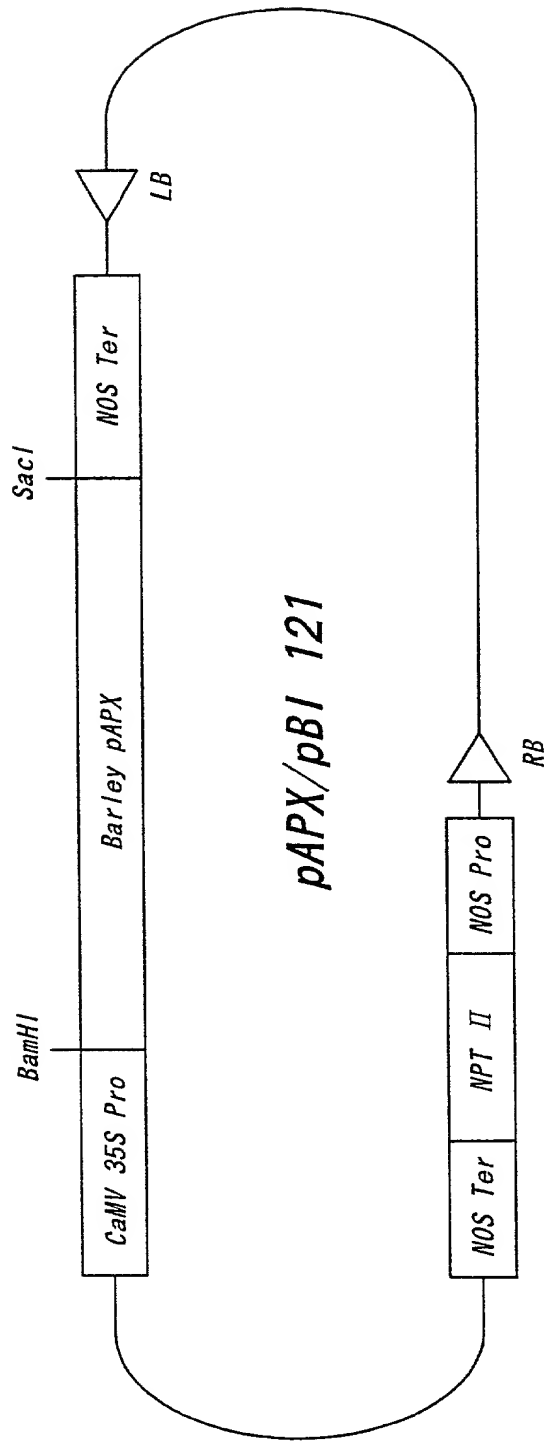


FIG. 2

CTTCTAGGGTTCGTCGCGATGGCGGGCTCCGGTGGTGGACGCCGAGTACCTGCGCCAGGTC
M A A P V V D A E Y L R Q V
GACAGGGCGCGCCGCGCCTTCCGTGCCCTCATCGCCTCCAAGGGATGCGCCCCCATCATG 120
D R A R R A F R A L I A S K G C A P I M 34
CTCCGCTCGCATGGCATGATGCTGGCACCTATGATGTGAACACAAGAAGTGGTGGTGCA
L R L A W H D A G T Y D V N T R T G G A
AATGGTTCAATTAGATACGAGGAAGAGTACACCCATGGTTCAAATGCTGGCTTAAAAATT 240
N G S I R Y E E E Y T H G S N A G L K I 74
GCTATTGATCTCCTTGAGCCTATTAAAGCGAAGCATCCAAAGATTACATATGCAGACCTT
A I D L L E P I K A K H P K I T Y A D L
CATCAGCTTGCCGGAGTAGTTGCAGTTGAAGTCACCGGGGGTCCAACCGTTGAGTTCATC 360
H Q L A G V V A V E V T G G P T V E F I 114
CCTGGAAGACGTGATTCTGTCAGTTTGTCCCGTGAAGGACGCCTTCCCTGATGCTAAGAAA
P G R R D S S V C P R E G R L P D A K K
GGTGCACCACATCTAAGGGACATCTTTTATCGAATGGGGTTAACAGACAAAGATATTGTA 480
G A P H L R D I F Y R M G L T D K D I V 154
GCACTATCTGGGGGGCACAGCCTGGGAAAGGCGCATCCTGAAAGGTCTGGGTTTGACGGT
A L S G G H S L G K A H P E R S G F D G
GCATGGACTCGTGACCCTCTGAAATTTGACAACCTCATACTTTCTTGAGCTACTGAAGGGG 600
A W T R D P L K F D N S Y F L E L L K G 194
GAATCTGAGGGTCTTCTGAAGCTCCCTACTGATAAGGCATTGTTGGATGATCCTGAATTT
E S E G L L K L P T D K A L L D D P E F
CGACGCTATGTGGAGCTTTTATGCAAAGGATGAGGATGTTTTCTTCAAGGACTACGCTGAA 720
R R Y V E L Y A K D E D V F F K D Y A E 234
TCACACAAAAAATTTCTGAACCTTGGCTTCACACCACGGAGCAGTGGCCCAGCATCTACA
S H K K L S E L G F T P R S S G P A S T
AAATCAGATGTTTCAACTGCTGTTGTACTTGACAGAGTGCAGTCGGGGTAGCAGTTGCT 840
K S D V S T A V V L A Q S A V G V A V A 274
GCAGCTGTAGTTATCGCGGGCTACCTGTACGAAGCTTCCAAGAGGAGCAAGTAAGGGGTT
A A V V I A G Y L Y E A S K R S K * 291

CGTGAGTTCTTGATGACATTCCCTTATTTAGTAAGTATCAAGTTATTATTCTAAAAAAA 960
TAAGTGCCAAGTGCAAATAACAGAACTCTAGTGATGAACAACCAACAGTAGTCTCAAAAT
ATTTACATATTCTTGAGGACATCTCCTTCATATATATACATCATACTTGAATAAAAAAA 1080
AAAAAAA 1089

FIG. 3

PAPX	MAAPVVDAAEYLROVDRARRAFRAALIASKGCAPIMRLRLAWHDAGTYDVNTRTGGCA
GAPX	MAFPVVDTEYLKEIDKARRDLRALIALKNCAPIMRLRLAWHDAGTYDVSTKTGGCP
APX3	MAAPIVDAEYLKEITKARRELSLIANKNCAPIMRLRLAWHDAGTYDAQSKTGGP
PAPX	NGSIRYEEEEYTHGSGNAGLKIAIDLLEPIKAKHPKITIYADLHQLAGVVAVEVTGG
GAPX	NGSIRNEEEYTHGANSGLKIAIDFCEEVKAKHPKITIYADLYQLAGVVAVEVTGG
APX3	NGSIRNEEEYTHGANSGLKIAIDLCCEGVKAKHPKITIYADLYQLAGVVAVEVTGG
PAPX	PTVEFIIPGRRDSSVCPREGRLPDAKKGAPHLRDIIFYRMGLTDKDIVALSGGHSL
GAPX	PTIDFVPGRKDSNICPREGRLPDAKRCGAPHLRDIIFYRMGLSDKDIVALSGGHSL
APX3	PDIVFVPGRKDSNVCPKEGRLPDAKQCFQHLRDIIFYRMGLSDKDIVALSGGHTL
PAPX	GKAHPERSGFDGAWTRDEPLKFDNSYFLLELLKGESEGLLKLPDTPDKALLDDPEFRR
GAPX	GRAHPERSGFDGCPWTNEPLKFDNSYFLLELLKGESEGLLKLPDTPDKALLDDPEFRR
APX3	GRAHPERSGFDGCPWTQEPFLKFDNSYFVLELLKGESEGLLKLPDTPDKTLEDDPEFRR
PAPX	YVELYAKDEDEVFFKDYAESHKKLSELGETPRSSGPASTKSDVSTAVVLAQSAVG
GAPX	YVELYAKDEDAFFRDYAESHKKLSELGETPTTSARSKVMVKD-ST-V-LAQCAVG
APX3	LVELYAKDEDAFFRDYAESHKKLSELGENPNSSAGKA-VAD-STI--LAQSAFG
PAPX	VAVAAAVVLAGYLVEASKRSK
GAPX	VAVAAAVVILSYFYEVRKRMK
APX3	VAVAAAVVAFGYFYEIRKRMK

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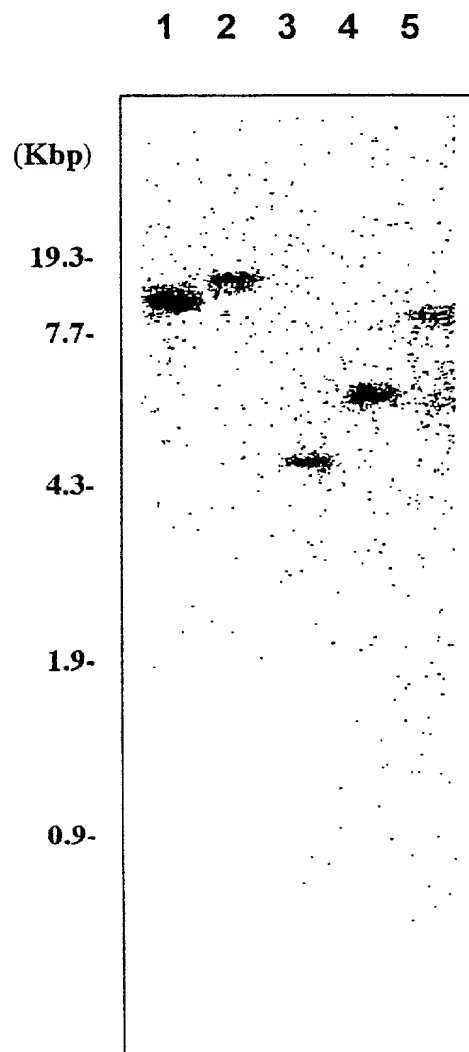
TITLE: PEROXISOMAL ASCORBATE PEROXIDASE GENE INDUCED BY HIGH
TEMPERATURE STRESS AND A TRANSGENEIC PLANT EXHIBITING
THERMOTOLERANCE

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FIG. 4



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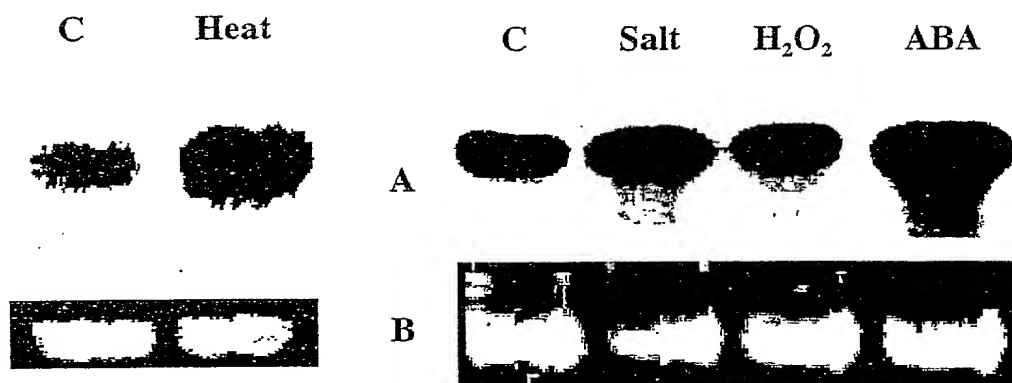
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FIG. 5



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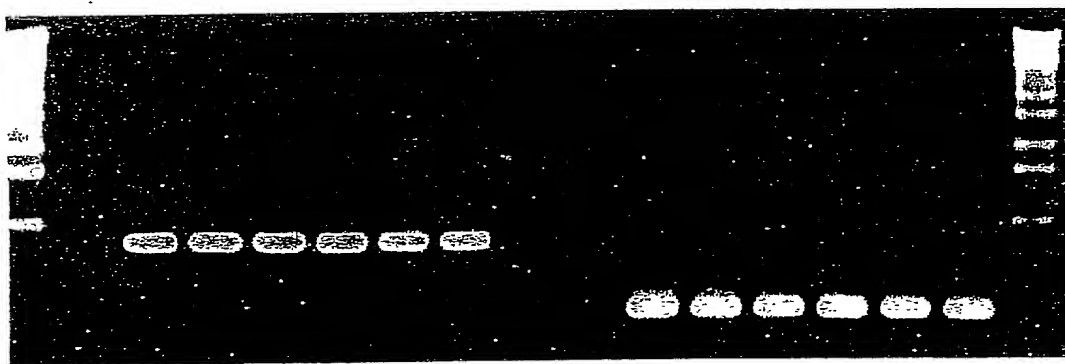
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FIG. 6

M_WT pAPX1 pAPX2 pAPX3 pAPX5 pAPX7 pAPX8 _ WT pAPX1 pAPX2 pAPX3 pAPX5 pAPX7 pAPX8 _M



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FIG. 7

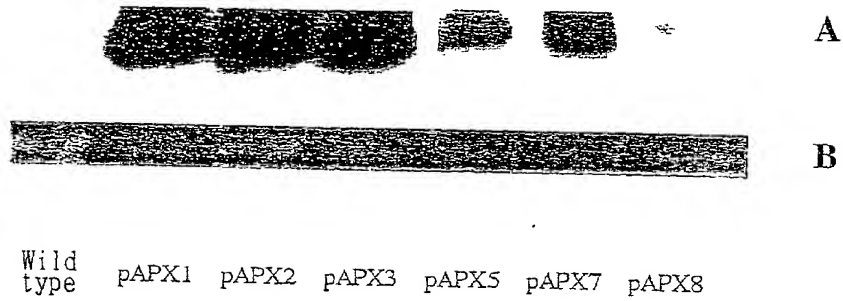
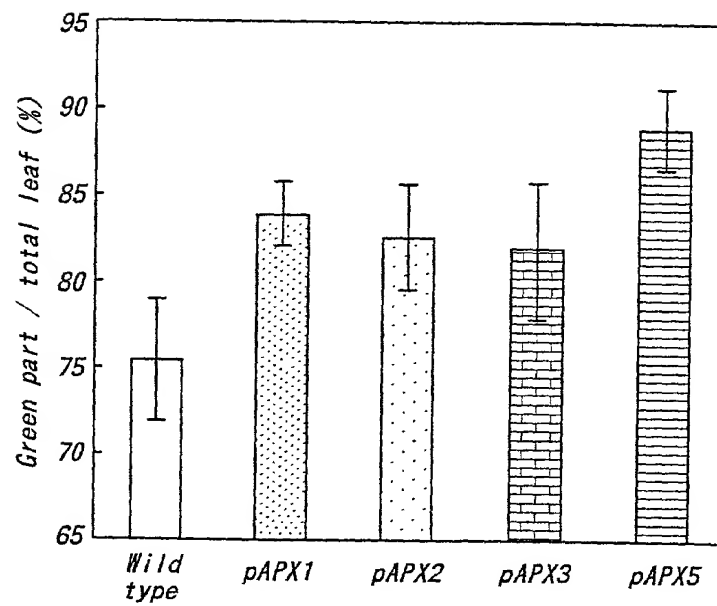


FIG. 8



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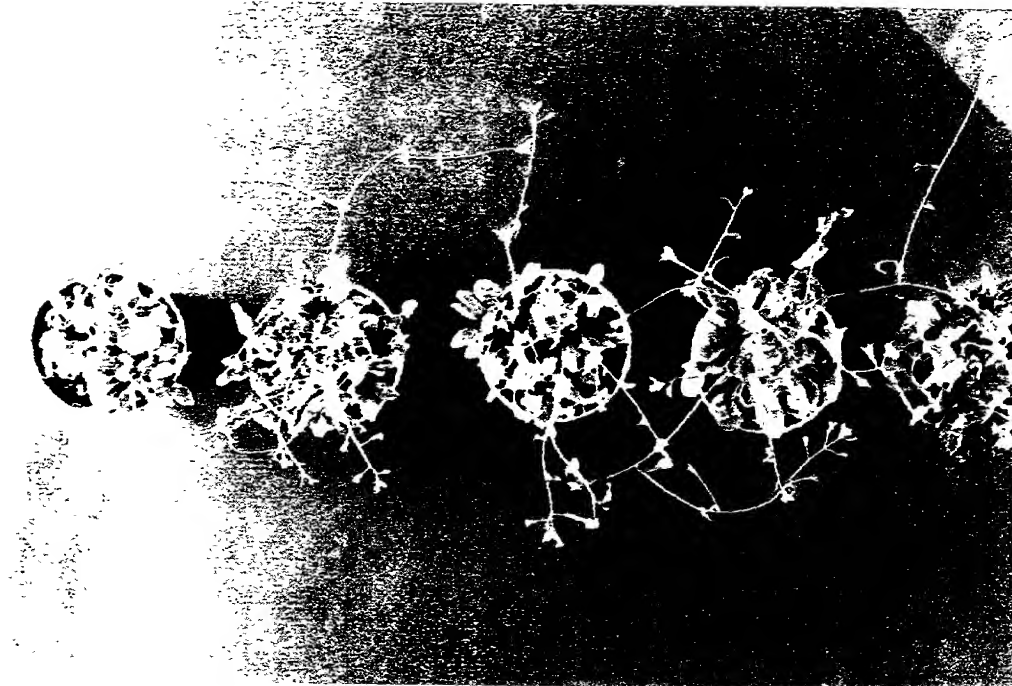
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FIG. 9



Wild type pAPX1 pAPX2 pAPX3 pAPX5